

<b>Elmet Technologies, Inc.</b>	)	<b>Departmental</b>
<b>Androscoggin County</b>	)	<b>Findings of Fact and Order</b>
<b>Lewiston, Maine</b>	)	<b>Air Emission License</b>
<b>A-565-71-P-R (SM)</b>	)	

After review of the air emissions license amendment application, staff investigation reports and other documents in the applicant's file in the Bureau of Air Quality, pursuant to 38 M.R.S.A., Section 344 and Section 590, the Department finds the following facts:

## **I. REGISTRATION**

### **A. Introduction**

Elmet Technologies, Inc. (ETI) of Lewiston, Maine has applied to renew their Air Emission License permitting the operation of emission sources associated with their manufacturing facility.

### **B. Emission Equipment**

ETI is authorized to operate the following equipment:

#### **Fuel Burning Equipment**

<b>Equipment</b>	<b>Maximum Capacity (MMBtu/hr)</b>	<b>Fuel Type, % sulfur</b>	<b>Stack #</b>
Bryan Boiler	4.0	Natural gas, propane, propane/air mixture	1
Johnson-Burnham Boiler	3.6	Natural gas, propane/air mixture, propane, #2 oil (0.5%)	2
Bryan Boiler #2	5.0	Natural gas, propane/air mixture, propane, #2 oil (0.5%)	3

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**Process Equipment**

<b>Equipment</b>	<b>Pollution Control Equipment</b>	<b>Stack #</b>
Tungsten primary reduction furnaces	None required by license	7
Molybdenum primary reduction furnaces	Baghouse	8
Mechanical doping tumblers	None	68
Molybdenum oxide grinder	Baghouse	8
Steel mandrel dissolving tanks and support equipment	Wet scrubber	4
Molybdenum mandrel dissolving tanks and mixed acid recovery system	Wet scrubber	5, 6
Molybdenum sheet annealing furnace	None	26
Caustic cleaning tank for molybdenum sheets	None	70
Wastewater evaporators	None	58, 59, 60, 61

ETI also operates various fuel burning and process equipment that are not listed in the above tables because the equipment meets the criteria of an insignificant activity as described in Appendix B of 06-096 CMR 115. Two previously licensed emission sources, the Stud dryer and the drying of filament coils, are now considered insignificant sources. Air emissions from both sources are well below one ton per year as a result of reduction in chemical usage.

**C. Application Classification**

The application for ETI does not include the licensing of increased emissions or the installation of new or modified equipment. Therefore, the license is considered to be a renewal of current licensed emission units only. With the fuel limit on the boilers and the operation of pollution control equipment (i.e. scrubbers) on the process equipment, the facility is licensed below the major source thresholds and is considered a synthetic minor.

**II. BEST PRACTICAL TREATMENT (BPT)**

**A. Introduction**

In order to receive a license the applicant must control emissions from each unit to a level considered by the Department to represent Best Practical Treatment (BPT), as defined in 06-096 CMR 100 of the Air Regulations. Separate control

requirement categories exist for new and existing equipment as well as for those sources located in designated non-attainment areas.

BPT for existing emissions equipment means that method which controls or reduces emissions to the lowest possible level considering:

- the existing state of technology;
- the effectiveness of available alternatives for reducing emission from the source being considered; and
- the economic feasibility for the type of establishment involved.

Before proceeding with the control requirements for each unit a general process description is provided to identify where the equipment fits into the process.

### Process Description

Elmet Technologies, Inc. manufactures molybdenum and tungsten metal from refined ores, and fabricated metal parts for various industrial applications. Both tungsten and molybdenum metal is manufactured in a similar manner. Tungsten and molybdenum ores are processed in primary reduction furnaces that convert the ores to metal oxides. Molybdenum oxide is processed in a grinder to break apart clumps of oxide powder. The metal oxides are then chemically doped in mechanical tumblers. The doped oxide powder is then heated in secondary reduction furnaces to convert the metal oxides to metal. The resulting metal powder is pressed into ingots that are then sintered in electric sintering furnaces, and further processed into various products, including wire, sheet and stud products.

In the manufacture of lighting filament coils, tungsten wire is wound around steel and molybdenum mandrels. The mandrels are then dissolved in acid solutions, leaving behind the desired filament coil. The steel mandrels are dissolved in hydrochloric acid, while the molybdenum mandrels are dissolved in mixed acid, which consists of a mixture of nitric acid, sulfuric acid and water. ETI operates a mixed acid recovery system to treat wastes generated in the molybdenum mandrel dissolving equipment.

ETI also operates a molybdenum sheet department; furnaces are used to heat molybdenum ingots in preparation for converting the ingots to sheet form in rolling mills. This department contains a gas-fired annealing furnace that is used to anneal the metal sheets. Metal sheets are cleaned in a caustic cleaning tank in which the caustic is heated using gas-fired burners. In addition, metal sheets are washed with a VOC-containing solvent. The wash water from this operation is disposed of in the facility's wastewater system and is eventually evaporated in the facility's four wastewater evaporators.

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**B. BPT for Existing Equipment**

*Bryan Boilers #1 and #2, and Johnson-Burnham Boiler*

Each of these three boilers is capable of firing natural gas, propane, and a mixture of propane vapor and air. The Johnson-Burnham boiler and Bryan Boiler #2 are also capable of firing #2 fuel oil. Given the relatively small size of these boilers, the use of gas fuels and #2 fuel oil with a maximum sulfur content of 0.5% by weight, no additional measures are necessary to meet BPT. BPT for these boilers shall be the use of good combustion practices. BPT includes emission limits for each boiler and fuel use limits of #2 fuel oil, propane, and natural gas. These limits are described in the Order section of this license.

BPT for each boiler shall also consist of a visible emission limit. Visible emissions from each boiler, when firing #2 oil, shall not exceed 20% opacity on a six (6) minute block average basis, except for no more than (2) six (6) minute block averages in a 3-hour period. Visible emissions from each boiler, when firing propane or natural gas, shall not exceed an opacity of 10 percent on a six (6) minute block average basis, except for no more than two (2) six (6) minute block averages in a 3-hour period.

*Tungsten Primary Reduction Furnaces*

ETI operates both electric and gas-fired furnaces. The gas-fired furnaces are capable of burning natural gas, propane, and a propane/air mixture. Hydrogen gas is supplied to the furnaces to provide an oxygen deprived atmosphere. Ammonia gas is emitted from the furnaces during the processing of the tungsten ore, along with combustion byproducts from the furnace burners, and particulate matter consisting of metal oxide. ETI uses a baghouse to capture the metal oxide dust for recycling.

The uncontrolled particulate matter emissions from all of these furnaces combined are less than one ton per year. Since the uncontrolled particulate emissions are less than the insignificant activity threshold of 1 ton per year specified in Appendix B of 06-096 115, it was determined in a previous licensing action that the operation of the baghouse is not required in order to meet BPT. BPT for these furnaces shall be the use of good operating practices.

*Molybdenum Primary Reduction Furnaces*

These furnaces are capable of burning natural gas, propane, and a propane/air mixture. Hydrogen gas is supplied to the furnaces to provide an inert atmosphere.

The primary reduction process generates molybdenum oxide, which is released from the furnaces in the form of particulate matter. ETI operates a baghouse to capture the particulate matter for recycling.

The uncontrolled particulate matter emissions from all of these furnaces combined exceed one ton per year. Therefore, BPT for these furnaces shall consist of continued operation of the baghouse, and an opacity limit of 10% on a six minute block average basis, except for one six-minute block average in a one hour period.

#### *Mechanical Doping Tumblers*

Tungsten and molybdenum oxides are mixed with chemical dopants (typically nitrate compounds) and heated in the tumblers. Heat is supplied by burners that can fire natural gas, propane, and a propane/air mixture. In addition to the combustion byproducts that are emitted, NO<sub>x</sub> is released from the nitrate compounds. The emissions from the mechanical tumblers are directly vented to ambient air. BPT for the tumblers shall be the use of good operating practices.

#### *Mechanical Grinder for Molybdenum Oxide*

The mechanical grinder breaks apart clumps of molybdenum oxide powder to prepare the oxide for the secondary reduction process. The grinder is vented to a baghouse to capture and recycle molybdenum oxide powder. The uncontrolled particulate matter emissions from the grinder exceed one ton per year. Therefore, BPT for the grinder shall consist of continued operation of the baghouse, and an opacity limit of 10% on a six-minute block average basis, except for one six-minute block average in a one-hour period.

#### *Steel Mandrel Dissolving Tanks and Support Equipment*

The steel mandrel dissolving tanks and associated support equipment (including the HCl bulk storage tank and acid pre-heat tank) are vented to a wet scrubber consisting of a packed bed absorption tower that uses an aqueous solution of sodium hydroxide as the scrubbing media to control hydrochloric acid emissions. This scrubber was recently installed in 2004 to replace the existing one damaged during a fire. The licensing of this scrubber was addressed in Air Emissions License Amendment, A-565-71-M-M, issued on January 28, 2004. To meet BPT, ETI shall control the hydrochloric acid emissions from the steel mandrel dissolving tanks and associated support equipment such that either a removal efficiency of 95% or greater is achieved across the scrubber, or the emission rate from the scrubber does not exceed 1.0 pound per hour.

*Molybdenum Mandrel Dissolving Tanks and Mixed Acid Recovery System*

The molybdenum mandrel dissolving tanks and mixed acid recovery system (with the exception of the centrifuge) is vented to a wet scrubber consisting of a spraying system and a packed bed chamber. The scrubber uses an aqueous sodium hydroxide solution to control nitrogen dioxide (NO<sub>2</sub>) emissions that are released from the nitric acid during the dissolving process.

It was determined in a previous licensing action that uncontrolled emissions from the centrifuge are expected to be less than one ton per year, and the flow conditions are not suitable for tie-in to the scrubber. To meet BPT, ETI shall control the NO<sub>x</sub> emissions from the molybdenum mandrel dissolving tanks and associated mixed acid recovery system (with the exception of the centrifuge) such that either a removal efficiency of 95% or greater is achieved across the scrubber, or the NO<sub>x</sub> emission rate from the scrubber does not exceed 1.0 pounds per hour.

*Molybdenum Sheet Annealing Furnace*

This furnace is equipped with six burners that are capable of firing natural gas, propane, and a propane/air mixture. Each burner has a heat input capacity of 325,000 BTU/hour, giving the furnace a total capacity of 1.95 MMBTU/hour. Emissions from the annealing furnace consist of combustion byproducts from the burners. BPT shall be the use of good combustion practices.

*Caustic Cleaning Tank*

Molybdenum sheets are soaked in a caustic solution, and the caustic solution is kept hot by heating the tank with two burners, each capable of firing natural gas or a propane/air mixture. The heat input capacity of each burner is 500,000 BTU/hour, giving the tank heating system a combined heat input capacity of 1 MMBTU/hour. BPT for the caustic cleaning tank shall be the use of good combustion practices.

*Wastewater Evaporators*

Certain wastewater streams generated at the facility are not permitted to be discharged to the municipal wastewater treatment plant. These streams are instead evaporated on-site in one of four wastewater evaporators. Each evaporator can be fired by either natural gas or a propane/air mixture, and each has a heat input capacity of 750,000 BTU/hour. The wastewater treated in the evaporators contains organic compounds that are emitted as VOC as a result of the evaporation process. One of the sources of organic compounds in the wastewater is the cleaning solution used in the molybdenum sheet washing operation. This

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washing operation currently contributes less than 0.5 tons per year of organic compounds to the wastewater.

Given the relatively minor emissions associated with this area, no additional measures are necessary to meet BPT. BPT shall be the use of good operating practices. ETI shall maintain records on the quantity of VOC emissions from the wastewater evaporators and make it available to the Department upon request.

C. Hydrogen Emissions

ETI had submitted an initial Part 70 application to the Maine DEP in October 1996. The application was submitted on the basis that the facility had the potential to emit a “major amount” (i.e. greater than 100 tons/year) of a pollutant regulated under the Clean Air Act, namely hydrogen. To address this, ETI installed hydrogen gas flow meters in 2003 in those areas of the factory where there is significant hydrogen usage and direct venting of hydrogen to the atmosphere. ETI currently estimates its hydrogen emissions using data from these hydrogen flow meters. In addition, a flow meter was installed at the location that allows ETI to estimate the total hydrogen usage for the factory.

ETI will operate the hydrogen flow monitors to determine hydrogen emissions on a 12-month rolling total basis. If the data shows that hydrogen emissions are greater than 100 tons per year, the license will need to be updated and a determination for a Part 70 license will be reevaluated.

D. Annual Emissions

ETI is restricted to the following annual emissions, based on a 12 month rolling total. Based on the emission estimation methods used to develop these figures, emissions from certain “insignificant activities” are included in these figures. However, there are emissions from other insignificant activities at the plant that are not included in these figures.

Facility-wide fuel consumption is limited to the following quantities:

- Annual consumption of natural gas is limited to 250,000,000 standard cubic feet.
- Annual consumption of propane is limited to 2,763,000 gallons.
- The combined annual consumption of natural gas and propane is limited to the equivalent of 250,000 MMBTU of heat input based on 1,000 BTU/standard cubic foot for natural gas and 90,500 BTU/gallon for propane.

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- Annual consumption of #2 fuel oil is limited to 200,000 gallons with a maximum sulfur content of 0.5% by weight.

**Total Licensed Annual Emissions for the Facility  
Tons/year  
(used to calculate the annual license fee)**

Source	PM	PM <sub>10</sub>	SO <sub>2</sub>	NO <sub>x</sub>	CO	VOC	HCL	NH <sub>3</sub>
Boilers	2.51	2.51	7.50	22.95	13.90	1.54	-	-
Tungsten primary reduction furnaces <sup>1,2</sup>	-	-	-	-	-	-	-	20
Molybdenum primary reduction furnaces <sup>1,2</sup>	-	-	-	-	-	-	-	-
Molybdenum oxide grinder	1.00	1.00	-	-	-	-	-	-
Doping tumblers <sup>1</sup>	-	-	-	1.00	-	-	-	-
Steel mandrel dissolving	-	-	-	-	-	-	4.38	-
Molybdenum mandrel dissolving	-	-	-	4.38	-	-	-	-
Molybdenum sheet annealing furnace <sup>1</sup>	-	-	-	-	-	-	-	-
Caustic cleaning tank <sup>1</sup>	-	-	-	-	-	-	-	-
Wastewater evaporators <sup>1</sup>	-	-	-	-	-	1.00	-	-
<b>Total</b>	<b>3.51</b>	<b>3.51</b>	<b>7.50</b>	<b>28.33</b>	<b>13.90</b>	<b>2.54</b>	<b>4.38</b>	<b>20.00</b>
footnote 1: combustion emissions from this source are included with the Boiler emissions footnote 2: non-combustion particulate emissions from this source are included with the molybdenum oxide grinder emissions								

### III. AMBIENT AIR QUALITY ANALYSIS

According to the 06-096 CMR 115, the level of air quality analyses required for a renewal source shall be determined on a case-by case basis. Modeling and monitoring are not required for a renewal if the total emissions of any pollutant released do not exceed the following:

Pollutant	Tons/Year
PM	25
PM <sub>10</sub>	25
SO <sub>2</sub>	50
NO <sub>x</sub>	100
CO	250



Based on the above total facility emissions, ETI is below the emissions level required for modeling and monitoring.

### **ORDER**

Based on the above Findings and subject to conditions listed below, the Department concludes that the emissions from this source:

- will receive Best Practical Treatment,
- will not violate applicable emission standards,
- will not violate applicable ambient air quality standards in conjunction with emissions from other sources.

The Department hereby grants Air Emission License A-565-71-P-R, subject to the following conditions:

Severability. The invalidity or unenforceability of any provision, or part thereof, of this License shall not affect the remainder of the provision or any other provisions. This License shall be construed and enforced in all respects as if such invalid or unenforceable provision or part thereof had been omitted.

### **STANDARD CONDITIONS**

- (1) Employees and authorized representatives of the Department shall be allowed access to the licensee's premises during business hours, or any time during which any emissions units are in operation, and at such other times as the Department deems necessary for the purpose of performing tests, collecting samples, conducting inspections, or examining and copying records relating to emissions (38 M.R.S.A. §347-C).
- (2) The licensee shall acquire a new or amended air emission license prior to commencing construction of a modification, unless specifically provided for in Chapter 115. [06-096 CMR 115]
- (3) Approval to construct shall become invalid if the source has not commenced construction within eighteen (18) months after receipt of such approval or if construction is discontinued for a period of eighteen (18) months or more. The Department may extend this time period upon a satisfactory showing that an extension is justified, but may condition such extension upon a review of either the control technology analysis or the ambient air quality standards analysis, or both. [06-096 CMR 115]

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- (4) The licensee shall establish and maintain a continuing program of best management practices for suppression of fugitive particulate matter during any period of construction, reconstruction, or operation which may result in fugitive dust, and shall submit a description of the program to the Department upon request. [06-096 CMR 115]
- (5) The licensee shall pay the annual air emission license fee to the Department, calculated pursuant to Title 38 M.R.S.A. §353. [06-096 CMR 115]
- (6) The license does not convey any property rights of any sort, or any exclusive privilege. [06-096 CMR 115]
- (7) The licensee shall maintain and operate all emission units and air pollution systems required by the air emission license in a manner consistent with good air pollution control practice for minimizing emissions. [06-096 CMR 115]
- (8) The licensee shall maintain sufficient records to accurately document compliance with emission standards and license conditions and shall maintain such records for a minimum of six (6) years. The records shall be submitted to the Department upon written request. [06-096 CMR 115]
- (9) The licensee shall comply with all terms and conditions of the air emission license. The filing of an appeal by the licensee, the notification of planned changes or anticipated noncompliance by the licensee, or the filing of an application by the licensee for a renewal of a license or amendment shall not stay any condition of the license. [06-096 CMR 115]
- (10) The licensee may not use as a defense in an enforcement action that the disruption, cessation, or reduction of licensed operations would have been necessary in order to maintain compliance with the conditions of the air emission license. [06-096 CMR 115]
- (11) In accordance with the Department's air emission compliance test protocol and 40 CFR Part 60 or other method approved or required by the Department, the licensee shall:
  - A. perform stack testing to demonstrate compliance with the applicable emission standards under circumstances representative of the facility's normal process and operating conditions:
    1. within sixty (60) calendar days of receipt of a notification to test from the Department or EPA, if visible emissions, equipment operating parameters, staff inspection, air monitoring or other cause indicate to the Department

that equipment may be operating out of compliance with emission standards or license conditions; or

2. pursuant to any other requirement of this license to perform stack testing.
- B. install or make provisions to install test ports that meet the criteria of 40 CFR Part 60, Appendix A, and test platforms, if necessary, and other accommodations necessary to allow emission testing; and
- C. submit a written report to the Department within thirty (30) days from date of test completion.

[06-096 CMR 115]

- (12) If the results of a stack test performed under circumstances representative of the facility's normal process and operating conditions indicate emissions in excess of the applicable standards, then:
  - A. within thirty (30) days following receipt of such test results, the licensee shall re-test the non-complying emission source under circumstances representative of the facility's normal process and operating conditions and in accordance with the Department's air emission compliance test protocol and 40 CFR Part 60 or other method approved or required by the Department; and
  - B. the days of violation shall be presumed to include the date of stack test and each and every day of operation thereafter until compliance is demonstrated under normal and representative process and operating conditions, except to the extent that the facility can prove to the satisfaction of the Department that there were intervening days during which no violation occurred or that the violation was not continuing in nature; and
  - C. the licensee may, upon the approval of the Department following the successful demonstration of compliance at alternative load conditions, operate under such alternative load conditions on an interim basis prior to a demonstration of compliance under normal and representative process and operating conditions.

[06-096 CMR 115]

- (13) Notwithstanding any other provisions in the State Implementation Plan approved by the EPA or Section 114(a) of the CAA, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any statute, regulation, or Part 70 license requirement. [06-096 CMR 115]
- (14) The licensee shall maintain records of malfunctions, failures, downtime, and any other similar change in operation of air pollution control systems or the emissions unit itself that would affect emission and that is not consistent with the terms and conditions of the air emission license. The licensee shall notify the Department within two (2) days or the next state working day, whichever is later, of such occasions where such changes result in an increase of emissions. The licensee

shall report all excess emissions in the units of the applicable emission limitation.  
[06-096 CMR 115]

- (15) Upon written request from the Department, the licensee shall establish and maintain such records, make such reports, install, use and maintain such monitoring equipment, sample such emissions (in accordance with such methods, at such locations, at such intervals, and in such a manner as the Department shall prescribe), and provide other information as the Department may reasonably require to determine the licensee's compliance status. [06-096 CMR 115]

### **SPECIFIC CONDITIONS**

- (16) Bryan Boiler, Johnson-Burnham Boiler and Bryan Boiler #2:  
[06-096 CMR 115, BPT]

- A. The #2 fuel oil burned in the Johnson-Burnham boiler and Bryan Boiler #2 shall meet have a sulfur content no greater than 0.5% by weight.
- B. Emissions from each boiler while firing natural gas, propane or a propane/air mixture shall not exceed a PM emission limit of 0.12 lb/MMBtu and shall meet the following limits, expressed as pounds of pollutant per hour (lb/hr):

<b>Boiler</b>	<b>PM</b>	<b>PM<sub>10</sub></b>	<b>SO<sub>2</sub></b>	<b>NO<sub>x</sub></b>	<b>CO</b>	<b>VOC</b>
Bryan	0.04	0.04	0.01	0.60	0.40	0.04
Johnson-Burnham	0.04	0.04	0.01	0.54	0.36	0.04
Bryan Boiler #2	0.02	0.02	0.01	0.44	0.36	0.06

- C. Emissions from the Johnson-Burnham boiler and Bryan Boiler #2 when firing #2 fuel oil shall not exceed a PM emission limit of 0.12 lb/MMBtu and shall meet the following limits, expressed as pounds of pollutant per hour (lb/hr):

<b>Boiler</b>	<b>PM</b>	<b>PM<sub>10</sub></b>	<b>SO<sub>2</sub></b>	<b>NO<sub>x</sub></b>	<b>CO</b>	<b>VOC</b>
Johnson-Burnham	0.43	0.36	1.84	1.08	0.36	0.04
Bryan Boiler #2	0.40	0.40	2.52	0.94	0.38	0.02

- D. Visible emissions from each boiler, when firing #2 oil, shall not exceed 20% opacity on a six (6) minute block average basis, except for no more than (2)

six (6) minute block averages in a 3-hour period. Visible emissions from each boiler, when firing propane or natural gas, shall not exceed an opacity of 10 percent on a six (6) minute block average basis, except for no more than two (2) six (6) minute block averages in a 3-hour period. [06-096 CMR 101]

- (17) Molybdenum Primary Reduction Furnaces and Mechanical Grinder for Molybdenum Oxide: [06-096 CMR 115, BPT]
- A. ETI shall vent the molybdenum primary reduction furnaces and the molybdenum oxide grinder to a baghouse.
  - B. ETI shall inspect the baghouse on at least a weekly basis for the following: visible emissions from the stack connected to the baghouse, the pressure drop across the baghouse, and accumulation of particulate matter in the collection drum. The results of these inspections shall be recorded in a log.
  - C. At least every six months, ETI shall inspect the condition of the bags, the condition of the cleaning mechanism, and the pressure drop lines for possible plugging. The results of the semi-annual inspections shall be recorded in a log.
  - D. ETI shall perform maintenance on the baghouse at a frequency that is determined by ETI maintenance personnel to be appropriate based in part on the results of the inspections. ETI shall maintain a written record of maintenance work that is performed.
  - E. Visible emissions shall not exceed 10% opacity on a six minute block average basis, except for one six minute block average in a one hour period. [06-096 CMR 101]
- (18) Steel Mandrel Dissolving Tanks and Support Equipment: [06-096 CMR 115, BPT]
- A. ETI shall vent the steel mandrel dissolving tanks and associated support equipment to a packed bed scrubber to control hydrochloric acid emissions.
  - B. Hydrochloric acid emissions shall be limited such that either the scrubber achieves a removal efficiency of 95% or greater, or such that the emission rate from the scrubber does not exceed 1.0 pounds per hour.
  - C. The pH of the scrubbing media shall be measured continuously with a pH analyzer, and the pH value shall be displayed continuously at the scrubber control panel.
- (19) Molybdenum Mandrel Dissolving Tanks and Mixed Acid Recovery System [06-096 CMR 115, BPT]
- A. With the exception of the centrifuge serving the mixed acid recovery system, ETI shall vent the molybdenum mandrel dissolving tanks and the mixed acid recovery system to a wet scrubber.

- B. NO<sub>x</sub> emissions shall be limited such that either the scrubber achieves a removal efficiency of 95% or greater, or such that the NO<sub>x</sub> emission rate from the scrubber does not exceed 1.0 pounds per hour. Compliance shall be demonstrated by stack test upon Department request.
  - C. The pH of the scrubbing media shall be measured continuously with a pH analyzer, and the pH value shall be displayed continuously at the scrubber control panel.
- (20) Elmet Technologies Inc. shall operate the hydrogen flow monitors to determine hydrogen emissions on a 12-month rolling total basis. To maintain status as a synthetic minor source, ETI shall limit hydrogen emissions to less than 100 tons per year on a 12-month rolling total. If the data shows that hydrogen emissions are greater than 100 tons per year (12-month rolling total), the license will need to be updated and a determination for a Part 70 license will be reevaluated.  
[06-096 CMR 115, BPT]
- (21) Facility-wide Fuel Consumption Limits [06-096 CMR 115, BPT]
- Facility-wide fuel consumption shall be limited to the following quantities:
- A. Annual consumption of natural gas shall not exceed 250,000,000 standard cubic feet.
  - B. Annual consumption of propane shall not exceed 2,763,000 gallons.
  - C. The combined annual consumption of natural gas and propane shall be limited to the equivalent of 250,000 MMBTU of heat input based on 1,000 BTU/standard cubic foot for natural gas and 90,500 BTU/gallon for propane.
  - D. Annual consumption of #2 fuel oil shall not exceed 200,000 gallons with a maximum sulfur content of 0.5% by weight.
  - E. The fuel consumption restrictions shall apply on a 12-month rolling total basis.
- (22) Recordkeeping [06-096 CMR 115, BPT]
- A. ETI shall keep records of monthly plant-wide fuel use for each type of fuel burned at the facility, as well as a record of the 12-month rolling total fuel use for each type of fuel.

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- B. ETI shall demonstrate compliance with the sulfur content limit for #2 fuel oil by maintaining documentation on-site that the fuel oil delivered to the facility is #2 grade oil.
- C. ETI shall keep records of the quantities of ammonium paratungstate, nitrate dopants, and molybdenum sheet washing solvent, used on a monthly basis at the facility.

**(23) General Process Sources**

Visible emissions from any general process source shall not exceed an opacity of 20% on a six (6) minute block average basis, except for no more than one (1) six (6) minute block average in a 1-hour period. [06-096 CMR 101]

- (24) ETI shall notify the Department within 48 hours and submit a report to the Department on a quarterly basis if a malfunction or breakdown in any component causes a violation of any emission standard (38 M.R.S.A. §605).

**(25) Annual Emission Statement**

In accordance with Emission Statements, 06-096 CMR 137 (last amended July 6, 2004), the licensee shall annually report to the Department the information necessary to accurately update the State's emission inventory by means of:

- 1) A computer program and accompanying instructions supplied by the Department;  
or
- 2) A written emission statement containing the information required in 06-096 CMR 137.

Reports and questions should be directed to:

Attn: Criteria Emission Inventory Coordinator  
Maine DEP  
Bureau of Air Quality  
17 State House Station  
Augusta, ME 04333-0017

Phone: (207) 287-2437

The emission statement must be submitted by July 1 or as otherwise specified in 06-096 CMR 137.

Elmet Technologies, Inc.  
Androscoggin County  
Lewiston, ME  
A-565-71-P-R (SM)

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**Departmental  
Findings of Fact and Order  
Air Emission License**

**(26) Air Toxics Emission Statement**

If ETI exceeds the thresholds for HAPs listed in Appendix A of 06-096 CMR 137 in an inventory year, in accordance with 06-096 CMR 137 the licensee shall report, no later than July 1 every three years (2005, 2008, 2011, etc.) or as otherwise stated in 06-096 CMR 137, the information necessary to accurately update the State's toxic air pollutants emission inventory in a format prescribed by the Department containing the information required in 06-096 CMR 137.

Reports and questions should be directed to:

Attn: HAP Inventory Coordinator  
Maine DEP  
Bureau of Air Quality  
17 State House Station  
Augusta, ME 04333-0017

Phone: (207) 287-2437 [06-096 CMR 137]

DONE AND DATED IN AUGUSTA, MAINE THIS            DAY OF            2007.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: \_\_\_\_\_  
DAVID P. LITTELL, COMMISSIONER

**The term of this license shall be five (5) years from the signature date above.**

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: May 16, 2006

Date of application acceptance: May 29, 2006

Date filed with the Board of Environmental Protection: \_\_\_\_\_

This Order prepared by Edwin Cousins, Bureau of Air Quality.